Clean Energy Business Network Case Studies: How Federal Policy Impacts Businesses

Submission to the House Sustainable Energy and Environment Coalition's (SEEC's) Request for Information for the Thriving Economy Project

March 9, 2026

The **Clean Energy Business Network** **(CEBN)** is the small business voice for the clean energy economy, spanning more than 8,700+ business and community leaders across all 50 U.S. states, more than 400 congressional districts, and a broad spectrum of energy technologies. We are an independent, small business division of the Business Council for Sustainable Energy, and we offer these case studies as a companion to BCSE's response to the Sustainable Energy and Environment Coalition's (SEEC's) Thriving Economy Project Request for Information (for cross-reference, see BCSE's submission and case studies).

Businesses operating in the clean energy sector are uniquely shaped by public policy. Government can act as a regulator, investor, market driver, customer, and/or partner. Federal decisions—often interacting with state and local policies—shape capital access, infrastructure development, regulatory certainty, and long-term market signals.

The following three case studies illustrate how real companies across diverse technologies and business models are affected by federal policy. Together, they demonstrate the breadth of the decarbonization economy—from digital energy platforms to critical minerals, hydropower, and solar distribution—and highlight the central role of federal policy certainty. Please see the accompanying slide deck with a high-level summary and accompanying visuals.

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ecoLong (Albany, NY)

5 full-time equivalent (FTE) employees
https://eco-long.com/

Company Overview

ecoLong is a startup that has developed an advanced energy management platform using blockchain-enabled "transactive energy" systems. Its technology helps communities manage distributed energy assets to improve grid resilience, increase efficiency, and reduce costs.

Federal Investment in Technology Innovation

Federal investments enable early-stage technology validation that private capital alone would likely not supported, de-risking innovation and attracting follow-on funding from the public and private sectors.

Federal R&D support was foundational to ecoLong's growth:

- Received a U.S. Department of Energy Small Business Innovation Research (SBIR) grant in 2018.
- Subsequently secured additional grants from the Department of Energy (DOE) and U.S. Department of Agriculture.
- Leveraged federal SBIR funding to obtain matching state funds through New York's NYSTAR Innovation Grant program.

Federal and State Alignment in Infrastructure Investment

Appropriations for federal energy programs often impacts state-level opportunities—through both formula funds and competitive grants—create downstream market opportunities for firms. Thus, the federal government acts not only as an investor, but as a market catalyst.

Since 2022, several of ecoLong's key technology demonstration projects have been conducted in partnership with state and local governments:

- The City of Schenectady
- Albany County
- The New York State Energy Research and Development Authority (NYSERDA)

Projects included:

- Deployment of advanced energy systems in residential buildings.
- Workforce development initiatives.
- Grid flexibility and energy efficiency upgrades.

Future Market Signals

Demand-side policy signals create market opportunities for emerging energy technologies. This can impact the commercial viability and valuation of startups, even if their technologies are not yet ready to claim such incentives.

As examples of policies impacting ecoLong:

- Federal tax incentives for energy efficiency reduce consumer costs and increase demand for building upgrades.
- Federal climate and infrastructure laws signal long-term market opportunity, encouraging both public and private investment.

GlycoSurf (Salt Lake City, UT)

6.5 FTEs
https://www.glycosurf.com/

Company Overview

GlycoSurf is a specialty R&D chemicals company focused on bio-based extractants used to recover rare earth elements and other critical minerals from mining wastewater and industrial waste streams. These minerals are essential components of energy technologies such as electric vehicle batteries, wind turbines, semiconductors, and defense systems. The company also produces materials for a broad range of other applications: agriculture, cosmetics/personal care, pharma, and anti-biofilms.

Federal Investment in Technology Innovation

Federal research and development programs play a key role in building domestic capacity in strategic sectors such as critical minerals. By providing non-dilutive early-stage funding, these programs reduce technical risk and support commercialization in areas that are capital-intensive and geopolitically significant.

Federal SBIR funding has been central to GlycoSurf's growth and technical advancement:

- Since 2018, received approximately $7.2 million in SBIR grants from the Department of Energy and other federal agencies.
- Funding supported development of novel extractants for rare earth recovery and other applications.
- Federal investment positioned the company to contribute to U.S. efforts to reduce dependence on foreign mineral supply chains.

However, policy uncertainty has had direct operational consequences:

- The SBIR program expired at the end of September and was suspended for five months as Congress negotiated a reauthorization bill.
- As a result, two GlycoSurf projects were stalled between funding phases.
- Additionally, no new SBIR solicitations were issued during this time, disrupting the innovation pipeline for small R&D firms.

Federal and State Alignment in Strategic Industries

Federal priorities often influence and align with state-level economic development strategies. When federal agencies identify strategic sectors—such as critical minerals—states frequently co-invest to strengthen regional competitiveness.

GlycoSurf has benefited from this alignment:

- The State of Utah awarded $100,000 through an Economic Assistance Grant to scale production of a critical extractant for use in a West Virginia rare earth recovery project.
- Received funding through a National Science Foundation Engines initiative spanning Utah, Nevada, and Arizona.
- Federal and state investments together helped accelerate commercialization and regional supply chain development.

Future Market Signals

Federal policy supporting clean energy technology deployment also drives demand for upstream materials and components. Incentives for electric vehicles, renewable energy, and grid technologies expand long-term demand for critical minerals.

For GlycoSurf:

- Federal tax incentives and clean energy deployment policies increase demand for technologies that rely on rare earth elements.
- National security and industrial policy priorities signal sustained federal interest in domestic mineral supply chains.
- These policy signals affect private investment decisions and the long-term commercial outlook for companies operating in upstream segments of the clean energy economy.

The Bowersock Mills & Power Company (Lawrence, KS)

6 FTEs, 2 Interns
https://bowersockpower.com/

Company Overview

Bowersock is a 150-year-old, family-owned hydroelectric plant—the only operating hydropower facility in Kansas. It is certified as a Low Impact Hydropower Facility and was the 15th facility nationally to achieve this designation. The plant generates enough renewable electricity to power approximately 3,800 households and is integrated with a dam that supplies over 50% of the water for the City of Lawrence, Kansas.

Federal Tax Policy

The federal Production Tax Credit (PTC) and Investment Tax Credit (ITC) drive down electricity costs and serve as a key market driver for capital investments in clean, reliable, affordable power supplies. At some stages of congressional negotiations, the One Big Beautiful Bill Act (OBBBA) included significant rollbacks to all PTC and ITC technologies. Hydropower electricity was relatively minimally impacted by the final legislation, unlike

wind and solar. Bowersock has aspirations to rehabilitate operate additional facilities. As the team considers potential projects, the PTC and ITC have profound implications for the viability of potential projects.

- For companies like Bowersock, the PTC and ITC materially affect revenue projections and financing decisions for hydropower operators.
- Sudden changes to tax credit eligibility create financing volatility.

Federal and State Alignment in Infrastructure Investment

The City of Lawrence maintains the dam and local infrastructure supporting it (such as roads), while Bowersock is responsible for the power station.

In 2012, Bowersock built a second power generating station at the existing dam, tripling the plant's capacity. This project was supported by a combination of resources from:

- Section 1603 Treasury grants
- Recovery Zone Facility Bonds
- Qualified Energy Conservation Bonds
- DOE Section 242 hydropower grants

The company also reinvested all of the Sec. 242 grants (which are issued *after* plant expansion) into instituting upgrades at the new facility and subsequently rehabilitating the original station between 2020–2022, extending this existing asset's operational lifespan.

There are no dedicated federal incentives for rehabilitation of aging facilities, so this project would not have been possible without the earlier expansion. Many hydropower operators face a Catch 22, lacking the capital to repower existing plants but facing significant costs to decommission them.

Federal Electricity Market Regulation

In the late 1990s, Federal Energy Regulatory Commission (FERC) Orders 888 and 889 mandated open and nondiscriminatory grid access. As a result:

- Independent power producers gained equal grid access.
- "Wheeling" costs were reduced.
- Bowersock could sell power to the highest wholesale bidder.

However, obstacles remain:

- Regional transmission organizations and state utility commissions shape market participation rules.
- Kansas regulations restrict independent power producers like Bowersock to wholesale sales.

Cross-Cutting Lessons

Across all three case studies, several themes emerge:

- Federal R&D programs (e.g., SBIR) are foundational for early-stage innovation.
- Federal tax credits materially shape investment and market demand.
- Federal regulatory decisions determine market access and competition.
- Federal funding often flows through states, amplifying impact at local levels.
- Policy certainty is as important as policy design. Delays, expirations, or abrupt rollbacks can stall projects, disrupt supply chains, and deter investment.
- The energy industry is deeply interconnected with a breadth of other technologies and economic sectors: digital platforms; chemical manufacturing; construction, plumbing, and electrical trades; housing; state/local government; colleges and universities; and beyond.

At a national level, intentional federal support for an "all-of-the-above" energy strategy creates more affordable, reliable, resilient energy systems and fosters U.S. energy independence and technology competitiveness. At the local level, this federal support empowers communities to fully leverage their distinct resource strengths, catalyzing new economic clusters and job creation.

Thank you for the opportunity to submit these case studies to guide SEEC's Thriving Economies Project. Please reach out to CEBN President Lynn Abramson (labramson@cebn.org) with any questions.

CLEAN ENERGY BUSINESS NETWORK

ENERGY POLICY INTERSECTIONS:

BUSINESS CASE STUDIES

SEEC Thriving Economy Project RFI | March 9, 2026

ecoLong

Albany, NY | 5 FTEs | eco-long.com

Impacts of Policy:

Investment in technology R&D:

Federal DOE Small Business Innovation Research (SBIR), USDA

State NYSTAR matching grant to SBIR

Investment in infrastructure:

State NY State Energy Research & Dev. Authority (NYSERDA)

Local City of Schenectady & Albany County community projects

Future market signals:

Federal Tax incentives for energy efficiency

St./Loc. Building codes, utility rebates

Climate/Energy Sector: Energy efficiency, grid management

Technology: Advanced energy management platform for grid resilience and energy efficiency

ecoLong

Andy Barnes (CEBN), Nancy and Judy Min (ecoLong) meet with congressional offices

GlycoSurf

Salt Lake City, UT | 6.5 FTEs | glycosurf.com

Climate/Energy Sector: Rare earth minerals (for EVs, wind turbines, semiconductors, etc.)

Technology: Novel extractants to recover rare earth minerals from industrial sources

Impacts of Policy:

Investment in technology R&D:

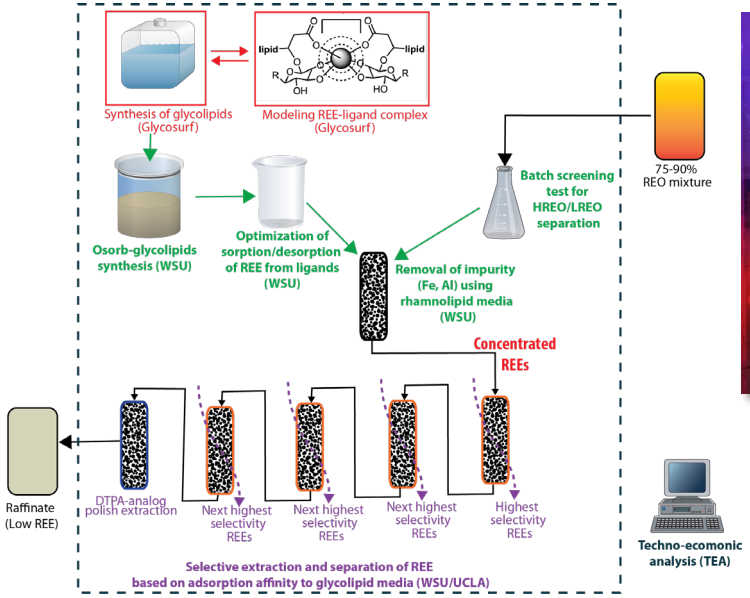
Federal DOE, NIH, & DOD Small Business Innovation Research (SBIR)

Fed./St. Utah Economic Assistance Grant, NSF Futures Engine (collaboration between Utah, Nevada, Arizona)

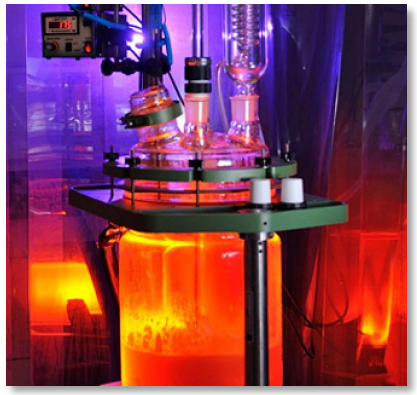
Future market signals:

Federal Tax incentives for clean energy (client industries)

State Economic development in mining and recycling of minerals



GlycoSurf



University of Arizona

The Bowersock Mills & Power Co.

Lawrence, KS | 6 FTEs, 2 interns | bowersockpower.com

Impacts of Policy:

Market signals:

Federal Tax incentives for hydropower

Investment in infrastructure:

Local City of Lawrence water supply (dam)

Federal Recovery Act grants/bonds for new power station (tripling output) and rehabilitation of original station

Regulations on electricity sales:

Federal FERC orders in 1990s opened up wholesale sales by independent power producers at same rate as investor-owned utilities

State KS only allows wholesale sales, not direct to businesses and individuals

Climate/Energy Sector: Hydropower

Technology: 150yo low-impact hydropower plant on Kansas River

Bowersock Mills and Power Co. aerial and team (from CEO Sarah Hill-Nelson)

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